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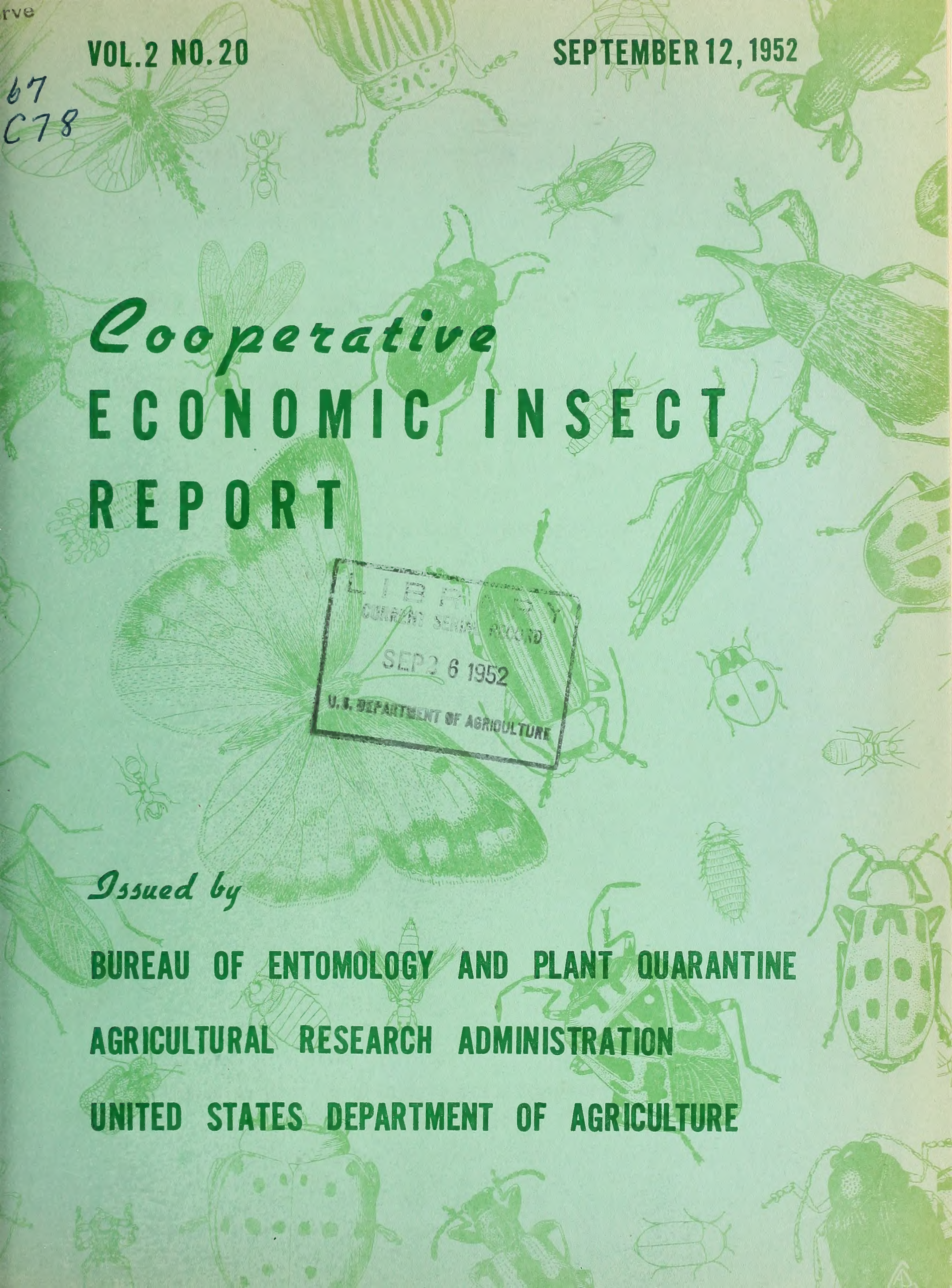

Cooperative ECONOMIC INSECT REPORT

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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

DIVISION OF INSECT DETECTION AND IDENTIFICATION

SECTION OF ECONOMIC INSECT DETECTION AND REPORTING

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Bureau serves as a clearing house and does not assume responsibility for accuracy of the material.

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Section of Economic Insect Detection and Reporting
Bureau of Entomology and Plant Quarantine
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Volume 2 September 12, 1952 No. 20

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

TWO-SPOTTED SPIDER MITE infestation damaging corn over wide area in Nebraska and in Arkansas Valley, Colorado. (page 281).

HESSIAN FLY infestation heavy in volunteer wheat in Kansas. Important insect threat in State. (page 282).

ARMYWORM outbreaks 1952. (page 283).

POTATO APHIDS summary for northeastern Maine. (page 286).

PINK BOLLWORM found in four South Texas counties outside quarantined area. (page 289).

COOPERATORS, if you are preparing summaries of insect conditions, results of surveys, etc. in your State for 1952, and you think such would be of interest to other states we would appreciate receiving copies for inclusion in the Report.

WEATHER FOR THE WEEK ENDING SEPTEMBER 9, 1952

The weather of the past week was dry and sunny, but much cooler than during the previous week. As cool air overspread the central and eastern sections of the country at the beginning of the period temperatures fell to unusually low levels for so early in the season. Record early season minima in the 40's or 50's were reported from Denver, Colorado; Springfield, Illinois; Lake Charles, Louisiana; Jackson, Mississippi; and Birmingham, Alabama. For the first time since July 17 the maximum temperature at Fort Worth, Texas on September 2 failed to reach or exceed 90 degrees. Hot weather quickly returned to the Great Plains, with Pierre, South Dakota recording 105 degrees on the 4th and 102 degrees on the 8th. But typical autumn weather continued throughout the period in the East as another cool air mass moved over that area during the latter half of the period, causing light scattered frost in northern areas and a low temperature of 31 at Cadillac, Michigan. West of the Great Plains the first part of the week was very warm, with near record maximum temperatures in scattered sections, but was somewhat cooler near the end of the period in the Northwest. Weekly averages were as much as 10 degrees above normal in the Plateau and extreme Southwest.

The week was unusually dry. Light to moderate rains fell over Alabama, the Ohio Valley, the Appalachian Region, and Atlantic Coastal States on September 2, over Montana and parts of North Dakota over the week end, and on several occasions in Florida. Elsewhere precipitation was generally limited to widely scattered showers. The topsoil is generally very dry from the Great Plains westward. (Summary supplied by U. S. Weather Bureau).

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Reports in this issue are for the week ending September 6 unless otherwise designated.

CEREAL AND FORAGE INSECTS

A WHEAT HEAD ARMYWORM (Protoleucania sp.) -- MONTANA - Infestations in parts of Cascade, Choteau, and Fergus Counties. Usually not notice until found in harvested wheat. Damage estimated at less than 1 percent. (J. P. Corkins, August 30).

GRASSHOPPERS (Acrididae) -- KANSAS - No real injury from grasshoppers any areas, though slight feeding on corn has occurred in northwest, especially Cheyenne and Rawlings Counties. Second generation of the migratory grasshopper (Melanoplus mexicanus) was small, with only a few being observed in irrigated fields in southwest areas. Melanoplus bivittatus and possibly M. femur-rubrum have been reported in pastures and sweetclover in Meade and Clark Counties. Parasites and predators are active throughout State. Studies here show that when rain fall of June of previous year is high, grasshopper populations are low the next year. The population this year is further proof of this condition. (R. C. Smith, August 30). IDAHO - Range species copulating in Twin Falls, Cassia, and Minidoka Counties. (H. C. Manis).

CORN EARWORM (Heliothis armigera) and FALL ARMYWORM (Laphygma frugiperda) -- SOUTH CAROLINA - Either or both species causing serious injury to late field corn, Charleston area. (W. J. Reid). ALABAMA -- Continue to cause damage to grain sorghum, peanuts, lespedeza, and other pasture crops. (F. S. Arant). MISSISSIPPI - Light infestations of fall armyworm in Covington County. (J. H. Harris, August 30). TENNESSEE - Corn earworm severely damaging soybeans in southern half of State. Also infesting heads of milo. (R. P. Mullett). IDAHO - All stages of corn earworm present in corn and practically 100 percent infestation in southcentral area. Canning corn about 100 percent infested in southwestern area; however, actual corn loss not great but labor requirements at cannery greater. Practically all efforts to control infestations have ceased. (H. C. Manis).

TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) -- NEBRASKA - Infestation and damage continues to increase on corn. Some entire fields reported destroyed near North Platte. Infestation covers 230 mile stretch, from Hershey to Schuyler. (R. E. Hill). COLORADO -- Populations causing serious damage on corn in Arkansas Valley. Control measures being applied by aircraft. (L. B. Daniels).

BEAN LEAF BEETLE (Cerotoma trifurcata) -- KANSAS - Reported seriously damaging soybeans near Burlingame, Osage County. Has been prevalent and destructive to beans throughout summer. (R. C. Smith, August 30).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) -- TENNESSEE - Damaging soybeans in southern areas. (R. P. Mullett).

GREEN CLOVERWORM (Plathypena scabra) -- MISSISSIPPI - Infesting soybeans in Quitman County. Damaging soybeans in Alcorn and Coahoma Counties. (Smith and Hutchins, August 30). KANSAS - Damaging soybeans over much of eastern areas. Control measures being applied. (R. C. Smith, August 30). ALABAMA - Damaging soybeans in several northern counties. (F. S. Arant). TENNESSEE - Severely damaging soybeans, southern areas. (R. P. Mullett).

BLISTER BEETLES (Epicauta spp.) -- MISSISSIPPI - Damaging soybeans in Holmes County. (R. P. Colmer, August 30).

CLOVER APHID (Anuraphis bakeri) -- IDAHO - Building up in red clover seed fields in Cassia and Minidoka but too late to cause damage. (H. C. Manis).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) -- GEORGIA - Damaging cowpeas in Appling, Crawford, Peach, and Wheeler Counties. (C. R. Jordan).

SORGHUM WEBWORM (Celama sorghiella) -- TENNESSEE - Infesting milo plantings. (R. P. Mullett).

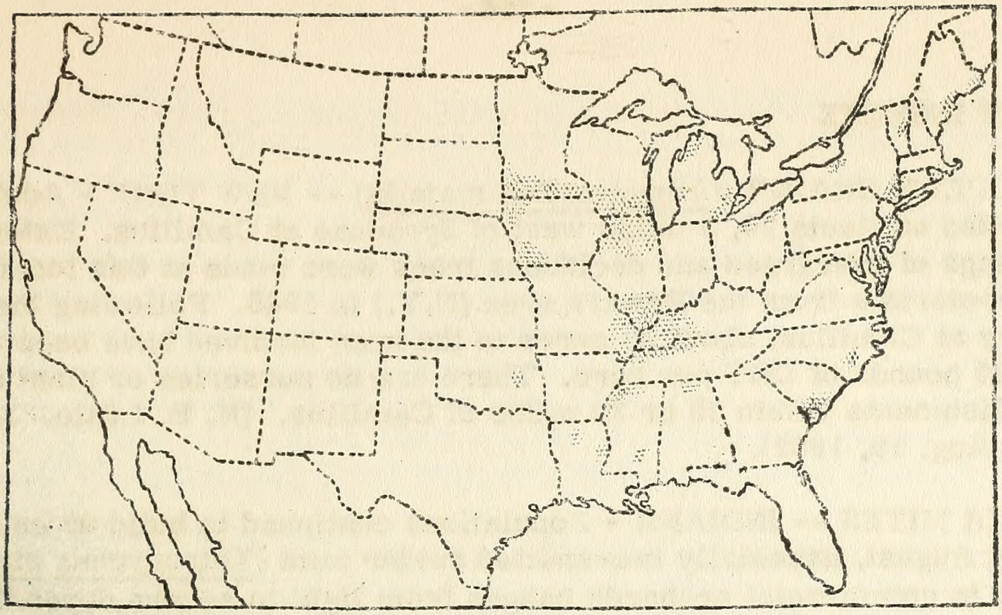
CHINCH BUG -- MISSISSIPPI - Damaging lawns in Harrison County. (T. F. McGehee, August 30).

SCALE INSECTS -- FLORIDA - Rhodes-grass scale (Antonina graminis) and Odonaspis ruthae continue abundant and injurious on golf greens in southeastern area. (D. O. Wolfenbarger).

HESSIAN FLY (Phytophaga destructor) -- KANSAS - Larvae and "flaxseeds" found in heavy growths of volunteer wheat. Heaviest infestations in Norton and Colby regions. An outbreak could develop where susceptible varieties are sown. This is believed to be the most important insect threat in the State. Adults not yet emerging. (R. C. Smith, August 30).

WHEAT STEM SAWFLY (Cephus cinctus) --MONTANA - Further reports of damage from Pondera County. (J. P. Corkins, August 30).

ARMYWORM (Pseudaletia unipuncta) -- ALABAMA - Causing severe damage to fescue grass, northern areas. (F. S. Arant). TENNESSEE - Small local infestations on milo and pasture crops. (R. P. Mullett).



ARMYWORM (Pseudaletia unipuncta) OUTBREAKS 1952 (see map)*

A heavy outbreak occurred during May in northwestern Tennessee, western Kentucky, southern Illinois and southeastern Missouri. Small grains and grasses were severely damaged in Tennessee and southern Illinois, while damage was lighter, though serious, in Kentucky and Missouri. Although infestations along the Atlantic Coast from South Carolina to Maine were not reported as severe or widespread, small grains and grasses were damaged considerably in New Jersey. Vermont recorded its first outbreak since 1938.

The most serious outbreak in 10 years spread over more than 20 southern Wisconsin counties around the middle of July causing heavy loss to small grain and corn growers. This infestation extended over the northern half of Illinois and southern Minnesota where the insects damaged cereal and forage crops considerably. Heavy, severe, but localized, outbreaks also occurred in Michigan and Ohio.

Heavy moth flights in northern Illinois, Maryland and New Jersey were observed during August.

*Based entirely upon cooperative reports.

FRUIT INSECTS

EUROPEAN CHAFER (*Amphimallon majalis*) -- NEW YORK - Adult flight recorded on Route 20, 5 miles west of Syracuse at Camillus. Extensive plantings of evergreen and deciduous trees were made at this location with materials from the Newark area (N.Y.) in 1946. Following the discovery at Camillus, about 30 acres in the area involved have been treated with 25 pounds of DDT per acre. There are no nurseries or plant shipping establishments within 25 or 30 miles of Camillus. (H. B. Little. Letter dated Aug. 19, 1952).

SPIDER MITES -- INDIANA - Populations continued to build up on apples during August, especially two-spotted spider mite (*Tetranychus bimaculatus*). Injury in commercial orchards ranges from light to severe depending on control program followed. Red Delicious show most severe injury. Defoliation occurred some orchards where infestation not checked promptly. A few growers reported ineffectiveness of parathion in control of European red mite (*Metatetranychus ulmi*)*; however, Aramite, used in these cases, gave good control. No positive proof has been obtained that European red mite has built up resistance to parathion in this area as reported from Washington, New York and New Jersey. (D.W. Hamilton, Vincennes).

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* (*Paratetranychus pilosus* (C. & F.)

A. E. Pritchard and E. W. Baker, 1952. Hilgardia 21(9): 253-287, A Guide to the Spider Mites of Deciduous Fruit Trees.

> "In most of the North American literature this species has been referred to as *Paratetranychus pilosus* (Canestrini and Fanzago). *Metatetranychus* has been recognized by most acarologists in Canada, Europe, and Australia, and in our opinion is a valid genus.
>
> "The trivial name *ulmi* (Koch), 1836, is based on a description that is fully as diagnostic as that of Canestrini and Fanzago, 1876, for *pilosus*. .... There seems to be no justification for not accepting in the United States a name that is in current use throughout most of the world. *Metatretranychus ulmi* is, therefore, used instead of *Paratetranychus pilosus*."

CODLING MOTH (Carposcapsa pomonella) -- INDIANA - Peak third brood activity occurred, Vincennes area, between August 25 and September 1, although some entries expected for next two weeks. Injury more frequent and heavier than during past three seasons. Increase in injury is attributed to unusually favorable weather conditions for development and more rapid breakdown or weathering of DDT due to hot, dry weather. Commercial orchards that followed regular spray warnings and applied extra cover sprays during July and August have excellent control; no definite evidence of resistance to DDT has been observed. (D. W. Hamilton). OHIO - No cage emergence since August 25. During warm period of August 27 to September 2 new entries noted in orchards. (C.R. Cutright).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) -- INDIANA - Third-brood adults taken in bait traps from August 7 through 28, but infestations throughout southern areas extremely light. No commercial injury from this pest is anticipated. Activity more prevalent in northern areas but injury will probably continue light. (D. W. Hamilton). OHIO - Third-generation larvae in first, second, and possibly few in third instar. As yet commercial injury is light. (C. R. Cutright).

APPLE MAGGOT (Rhagoletis pomonella) -- OHIO - Severe in neglected orchards. Also found where short spray schedules used. (C. R. Cutright).

STINK BUGS -- INDIANA - Caused principal injury to peaches in Vincennes area; 2 to 18 percent "catfacing" in commercial orchards.

CLOVER MITE (Bryobia praetiosa) -- COLORADO - Injurious populations reported in Western Slope apple orchards. (L. B. Daniels).

ROUNDHEADED APPLE TREE BORER (Saperda candida) -- ALABAMA - Severe infestations reported in Chilton County. This pest is apparently increasing in importance in the few localities where apples are grown commercially. (F. S. Arant).

FALL WEBWORM (Hyphantria cunea) -- MISSISSIPPI - Webs on pecan and other trees becoming numerous again, indication of another generation. (R. E. Hutchins).

WHITE GRUBS (Phyllophaga spp.) -- MISSISSIPPI - Adults feeding on pecan trees in Covington County. Grubs causing damage to lawns in Harrison County; population estimated at 12 per square foot. (Harris and McGehee, August 30).

TRUCK CROP INSECTS

Potato Aphids Summary Northeastern Maine

Populations continued to rise rapidly during first half of August on untreated potatoes and in some commercial plantings treated with DDT. Peak infestations, varying from small to large, occurred in untreated experimental plantings on Aroostook Farm between August 14 and 21, depending upon factors such as time of planting, location, and abundance of natural agencies of aphid control. The buckthorn aphid (*Aphis abbreviata*) was predominant, followed by the potato aphid (*Macrosiphum solanifolii*) and the foxglove aphid (*Myzus solani*). Green peach aphid (*Myzus persicae*) occurred in small numbers except in or adjacent to fields artificially colonized with that species. After the peak, populations dropped rapidly. Only light infestations found in most of the treated and untreated plantings examined at end of August. Natural agencies were largely responsible for the earlier than usual and sharp drop in populations, although departure of fall migrants was a contributing factor. (W. A. Shands).

CABBAGE APHIDS -- MAINE - (Summary) Began appearing in appreciable numbers about the middle of August in heads of broccoli. Infestations, at first, were spotty and located largely in central Aroostook, but some in the Houlton district. Infestations increased and spread rapidly until practically all fields were involved to some extent. Appreciable loss of cut broccoli heads occurred at processing plant because of aphid infestation. CORRECTION: (As reported in C.E.I.R., Vol. 2, No. 18, page 257) "Two grams of aphids to 100 grams of broccoli (head)" should be corrected to read "as many as 286 aphids per 100 gram sample of broccoli head." (W. A. Shands)

LETTUCE APHID (*Macrosiphum barri*) -- IDAHO - Late seed fields being dusted for control of this aphid. Most early fields were cut before damage occurred. (H. C. Manis).

CABBAGE CATERPILLARS - NORTH CAROLINA - Cabbage looper (*Trichoplusia ni*) infestation on cabbage, extreme western area, moderate to heavy with indications that adequate control not being obtained from DDT. (W. J. Reid, August 20). WISCONSIN - Abundant on cabbage in most fields examined. (E. L. Chambers).

SERPENTINE LEAF MINER (*Liriomyza* sp.) -- FLORIDA - Infestations in young tomato plantings, southern area. (D. O. Wolfenbarger).

BANDED CUCUMBER BEETLE (Diabrotica balteata) -- SOUTH CAROLINA - Sufficiently abundant to require control measures on young snap beans some fields. Moderately abundant in fall curcurbit plantings and causing some injury. (W. J. Reid, Charleston area).

PICKLEWORM (Diaphania nitidalis) -- SOUTH CAROLINA - Summer squash not receiving insecticides has been practically destroyed; light infestations on fall curcurbits, though control measures adequate. (W. J. Reid, Charleston area).

HARLEQUIN BUG (Murgantia histrionica) -- NEBRASKA - Infesting home garden cabbage, turnips, brussel sprouts. Also observed on sweet corn, eastern area. (H. J. Ball).

BEET WEBWORM (Loxostege sticticalis) -- COLORADO - Moth flight observed during past week from light trap collections in Arkansas Valley. (L. B. Daniels).

BEAN LEAF BEETLE (Cerotoma trifurcata) -- SOUTH CAROLINA - Sufficiently abundant to require control on young snap beans in some fields. (W. J. Reid, Charleston area).

POTATO FLEA BEETLE (Epitrix cucumeris) -- MAINE - (Summary). Summer generation emerged during last of July and first of August. Infestations appeared more abundant and injurious in the southern part than in the central part of Aroostook County. Large population, causing moderate damage, observed in one field near Houlton, August 12. Reports indicated same situation in other fields of that vicinity. Populations and damage in central Aroostook were, generally, very light. (W. A. Shands).

CORRECTION; In Vol. 2, No. 18, page 259 a note from Georgia erroneously placed under "squash bug" should have been included in the "squash vine borer" item.

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) -- TENNESSEE - Population continues to increase in 18 West Tennessee counties. Average infestation all fields 38 percent compared with 36 last week and 29 a year ago. Heaviest infestations in Fayette, Hardeman, McNairy, Henderson and Chester Counties. (Morris, Stanley, and Moser). ALABAMA - The large population of adults, combined with high rate of infestation, indicates there will be a great number of hibernating weevils this year. Twenty-nine fields examined in 7 southern counties; all infested at average rate of 32 percent. (M. W. Marsh, August 29). MISSISSIPPI - Of 154 fields examined in five Delta Counties, 116 had average infestation of 7.3 percent compared with 9.6 last week. Last week average infestation all fields was 4.8 percent against 5.5 this week. (E. W. Dunnam). ARKANSAS - Infestation about same as last week, except some fields of young cotton becoming infested for first time this season. (G. Barnes).

BOLLWORMS (Heliothis spp. et.al.) -- TENNESSEE - More prevalent and causing more damage than at any time this season in West Tennessee. (Morris, Stanley, and Moser). ALABAMA - Eight fields of 29 examined in 7 southern counties found infested. Average infestation infested fields 4 percent. (M. W. Marsh, August 29). MISSISSIPPI - Of 280 fields inspected for damage in 5 Delta counties, 32 had average square infestation of 7.8 percent. Eggs found in 170 fields at average rate of 41 per 100 terminals, against 18.6 last week. (E. W. Dunnam). ARKANSAS - Infestations continue heavy some fields. (G. Barnes). NEW MEXICO - Light scattered infestations in Mesilla Valley. (M. Swoboda). ARIZONA - Continue to be the major pests in Maricopa, Pinal and Pima Counties. (J. N. Roney).

COTTON LEAFWORM (Alabama argillacea) -- ALABAMA - Specimens collected from various sections, but no serious infestations reported. (F. S. Arant). MISSISSIPPI - Causing little damage but still increasing in Delta Counties. (E. W. Dunnam). ARKANSAS - Most of the larvae have pupated. (G. Barnes). NEW MEXICO - Building up rapidly in Deming district. Damage rather severe some fields, though infestations spotty. All stages present. Scattered infestations heavy enough to warrant treatment in Mesilla Valley; however, most of the insects in pupal and adult stages. (M. Swoboda). ARIZONA - Found in Pina County August 22. Rather general in Graham County. (J. N. Roney).

Cotton Insect Survey Kentucky, Missouri, Illinois

Examinations made in 9 fields in Fulton and Hickman Counties, Kentucky. No boll weevils, or infested squares, recorded. Square damage by lepidopterous larvae reported in all fields. Eighty fields inspected in 9 counties in Missouri. Boll weevil infestations found in Butler, Dunklin, and Ripley Counties. Lepidopterous larval damage noted in four counties. Fourteen fields inspected in Illinois; no boll weevils found. Slight square bollworm damage recorded in three fields in 2 counties. All examinations made in early August. (E. W. Dunnam).

PINK BOLLWORM (Pectinophora gossypiella) -- TEXAS - Three gin trash machines operating outside quarantined area in East Texas. Walker, Polk, and San Jacinto Counties found infested August 28 and 29. Houston County found infested September 3. Further operations in these counties indicate light, scattered infestations. (R. W. White).

SPIDER MITES -- NEW MEXICO - Scattered and localized infestations. (M. Swoboda). ARIZONA - Increasing some fields in Maricopa County. Light infestations, Graham County. (J. N. Roney).

APHIDS (Aphidae) -- NEW MEXICO - Building up on plants that have open bolls. Some damage to lint from "honey dew." (M. Swoboda).

INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (Callitroga americana) -- FLORIDA - Data compiled from 25 status fly traps operated throughout the State indicate that during the 4 trapping periods from May to August the incidence of adult flies and reported screw-worm cases remained constant. A total of 801 flies were trapped. Distribution of catches indicate higher population in northern half of the State than in southern half. (H. M. Brundrett). Inquiries in Taylor County indicate much heavier infestations than in 1951. One report of 43 cases in one week in a herd of 800 cattle. (C. M. Jones, August 28).

FIELD CRICKET (Acheta assimilis) -- FLORIDA - Appearing in abundance for third successive season, southern area. Nuisance around places of business. Also feeding on plants in nurseries and slathouses, and tomato seedlings. (D. O. Wolfenbarger).

BLACK WIDOW SPIDER (Latrodectus mactans) -- IDAHO - Common in basements some homes in Parma area. (H. C. Manis).